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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/510,347	04/06/2005	Christiane Jayet-Laraffe	3888-0108PUS1	7547
2292 7590 05/29/2009 BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747				
EXAMINER FOLEY, SHANON A				
ART UNIT 1619		PAPER NUMBER		
NOTIFICATION DATE 05/29/2009		DELIVERY MODE ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

### Office Action Summary

**Application No.**

10/510,347

**Applicant(s)**

JAYET-LARAFTE ET AL.

**Examiner**

SHANON A. FOLEY

**Art Unit**

1619

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 05 May 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 3-9 and 12-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 3-9 and 12-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-8508)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

The Group and/or Art Unit of your application has changed. To aid in correlating any papers for this application, all further correspondence regarding this application should be directed to Group Art Unit 1619, Examiner Foley.

Applicant's arguments with respect to the prior art previously cited is found persuasive. However, an updated search revealed pertinent references required to be made of record. Prosecution is being reopened.

#### ***Claim Objections***

Claim 5 is objected to because of the following informalities: In numerous places, the claim recites "on" instead of "or". Appropriate correction is required.

#### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 3, 5 and 12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Both of claims 3 and 5 specify that the first and second biocidal agents are selected from chitosan, chitin derivatives, quarternary ammonium, zinc zeolite, silver ions and tricosan. If both the first and second agents are identical compounds, how would the "first" and "second" agents required by the claims be identified?

Regarding claim 12, the phrase "in particular" is analogous to the phrases, "such as" and "for example". The language renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 15, 22 and 23 are rejected under 35 U.S.C. 102(b) as being anticipated by McIntosh, Jr., et al. (US 4,908,209).

McIntosh, Jr., et al. anticipate cotton, wool, linen, collagen, chitin, chitosan and plastics, such as polyolefins and polystyrenes incorporated with a mixture of biocides that are microencapsulated, see column 8, lines 38-40, column 9, lines 10-12 and claims 10, 16, 17 and 20.

Claims 23, 24, 3-5, 9, 12-17, 20 and 21 are rejected under 35 U.S.C. 102(c) as being anticipated by Ohnishi et al. (US 6,524,508).

Ohnishi et al. anticipate yarn immersed and sprayed with a composition comprising bacteriocidal and fungicidal agents comprising 0.1% chitosan and 0.35% of a quaternary ammonium salt, didecyldimethylammonium chloride. See column 8, lines 45-53, column 10, line 66 to column 12, line 39 and claims 1, 3 and 5.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ohnishi et al. *supra* and Phan et al. (US 5,039,339).

The claim requires that incorporation of the biocidal agent onto the cellulosic material is printed from an ink comprising the biocidal agent.

See the teachings of Ohnishi et al. above. The reference does not teach or suggest combining the biocidal agents taught within an ink to print the agents on the material.

However, Phan et al. teach paper or cellulosic material printed with ink comprising biocides, see claims 1 and 12.

One of ordinary skill in the art at the time the invention was made would have been motivated to incorporate the biocides of Ohnishi et al. into the printed substrate of Phan et al. to eliminate the presence of microorganisms on paper products, as evidenced by the claims of Phan et al. One of ordinary skill in the art at the time the invention was made would have had a reasonable expectation of success for combining the biocides of Ohnishi et al. in the printed substrate of Phan et al. because both Ohnishi et al. and Phan et al. treat cellulosic material with biocides.

Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ohnishi et al. *supra* and Widra (US 4,570,629).

The instant claim requires that the incorporation of the biocidal agent is accomplished by aqueous surfacing the cellulosic or plastic material with glycerol as a plasticizer.

See the teachings of Ohnishi et al. above. While Ohnishi et al. clearly teaches immersing cellulosic material with biocidal agents, Ohnishi et al. do not teach using a glycerol plasticizer.

Widra et al. teach a biodegradable polymeric wound dressing comprising chitosan, an antibiotic and a non-toxic glycerol plasticizer, see column 5, lines 48-53, claims 1, 6, 12 and 13.

One of ordinary skill in the art at the time the invention was made would have been motivated to use the non-toxic glycerol plasticizer of Widra et al. in the immersion/surfacing process of Ohnishi et al. to soften the quality of the immersed/surfaced material, see claims 12 and 13 of Widra et al. One of ordinary skill in the art at the time the invention was made would have had a reasonable expectation of success for softening the material of Ohnishi et al. with the glycerol plasticizer of Widra et al. since Widra et al. teach that the glycerol binds to chitosan (see column 5, lines 57-68) and the material of Ohnishi et al. also comprises chitosan.

Claims 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohnishi et al. *supra*.

The claims recite specific second biocidal agents. Admittedly, a search for the specific chemical names provided in the claims yielded no results, so it is not clear if the chemicals are known by other descriptors since no other information was provided by applicant. From the descriptive names provided in the instant claims, it would appear that one of ordinary skill in the art at the time the invention was made would have been able to reconstruct the physical linkages of individual atoms within each compound, if purchase from the companies described were unavailable, or if the formularies for any of the chemicals claimed were altered by the

companies. Therefore, it is determined that a lack of written description of the instant compounds is not applicable. It is noted that the chemical listed in instant claim 6 was purchased from the company Ondeo under the reference name "Surfactant 74859", described in instant paragraph [0130]. The chemical listed in instant claim 7 was purchased from the company ISP under the reference name "Fungitrol 420", described in instant paragraph [0138]. Finally, the chemical listed in instant claim 8 was purchased from the company Aquazur P&P under the reference name "Surfactant 74843", described in instant paragraph [0163].

Although Ohnishi et al. do not teach or suggest the instant chemicals recited in claims 6-8, it is determined that it would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to have substituted any specific known and readily-available-for-purchase fungicidal agents with a reasonable expectation of success since the teachings of Ohnishi et al. comprise art-recognized bacteriocide and fungicide components.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SHANON A. FOLEY whose telephone number is (571)272-0898. The examiner can normally be reached on M-F 5:30 AM-3 PM, alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael P. Woodward can be reached on (571) 272-8373. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Shanon A. Foley/  
Primary Examiner  
Art Unit 1619